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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/516,363	12/01/2004	Eric Bittner	1200.722	1443

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EXAMINER

BONCK, RODNEY H

ART UNIT	PAPER NUMBER
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3681

DATE MAILED: 06/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/516,363

Applicant(s)

BITTNER ET AL.

Examiner

Rodney H. Bonck

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 October 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/01/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

The following is a first action on the merits of application Serial No.10/516,363, filed December 1, 2004.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

Receipt is acknowledged of the Information Disclosure Statement filed October 1, 2004. The cited documents have been considered. Note, however, that the Japanese abstract provided has been considered and listed under "Other Documents", rather than under "Foreign Patent Documents"; because only a copy of the abstract was provided but not a copy of the Japanese patent itself.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the resilient element in the form of a disk spring, in the form of a corrugated spring, and in the form of a rubber buffer must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities: Reference to specific claim numbers in the specification (lines 34-37 of page 3) is objected to because the claims can be amended, canceled, or renumbered during prosecution rendering the reference thereto meaningless.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear from claim 1 whether applicants intend to claim the clutch in combination with a vehicle door or "flap" or merely to recite the vehicle door/flap as an intended use. Clarification is required. For examination purposes, the claims are read as being directed to a clutch capable of use for vehicle closures. In claim 2, recitation that the armature disk "can be acted on" by the resilient member makes it unclear whether the resilient member is claimed. In claim 5, "the compression spring" has no proper antecedent basis. In claim 7, "the housing" has no antecedent. Claims 9 and 10 are directed to a method but do not set forth any method steps.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Pierce('479). Pierce discloses an electromagnetic frictionally engaged clutch

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comprising a rotor part 11 that has a friction lining 22 and is firmly connected to shaft 25, an electric coil 12, and an armature disk 10 that is firmly connected to rotate with a second shaft 14. A permanent magnet 33 is mounted on the rotor and causes the armature to be drawn into engagement with the friction lining. The electromagnet can be energized to counteract the permanent magnet and release engagement of the armature. When the permanent magnet has drawn the armature into engagement with the friction lining, the clutch can slip if sufficient torque is applied, as with any friction clutch. Pierce further includes a resilient member 17 located in a blind bore and biasing the armature toward engagement. Spring 17 is a compression spring. Armature disk carrier 15 comprises axial guide parts 16 engaging groove-like recesses (threads) in the armature. Coil 12 is fixed to housing 31.

Claims 1 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Krug('061). Krug discloses an electromagnetic frictionally engaged clutch having a rotor part 12 connected to shaft 15 and having a friction lining 30. Coil C is mounted in a recess in the rotor part 12. An armature disk 24 is connected to shaft 19. The rotor part 12 also carries a permanent magnet 26 that draws the armature into engagement with the rotor part. The electromagnet can be energized to counteract the permanent magnet and release engagement of the armature. When the permanent magnet has drawn the armature into engagement with the friction lining, the clutch can slip if sufficient torque is applied, as with any friction clutch.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 8/1, 8/2, 8/3, 8/4, 8/5, and 8/7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pierce('470) in view of Puro('215). The Pierce device lacks the sealing lip extending from the armature disk carrier called for in claim 8. Puro shows an electromagnetic clutch having an armature disk carrier 20 providing a sealing lip 23 extending over the friction lining and the rotor part. It would have been obvious to provide such a sealing lip in Pierce, the motivation being to protect the clutch engaging surfaces from dirt and moisture.

Claims 8/6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Krug('061) in view of Puro('215). The Krug device lacks the sealing lip extending from

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the armature disk carrier called for in claim 8. Puro shows an electromagnetic clutch having an armature disk carrier 20 providing a sealing lip 23 extending over the friction lining and the rotor part. It would have been obvious to provide such a sealing lip in Krug, the motivation being to protect the clutch engaging surfaces from dirt and moisture.

Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Pierce('470) or Krug('061) in view of Jaeschke('658). In Pierce and Krug, the electromagnet is used to counteract the force of the permanent magnet. Jaeschke disclose an electromagnetic clutch wherein the armature is attracted by the permanent magnet. Current in the electromagnet can be controlled to reinforce the attractive force of the permanent magnet or to counteract it. It would have been obvious to so control Pierce or Krug, the motivation being to provide better control of engagement force.

Conclusion

he prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Baermann('149) and Pardee('922) show other electromagnetic clutches having permanent magnets. Dietrich et al.('382) shows a vehicle door opener using an electromagnetic clutch.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney H. Bonck whose telephone number is (571)

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272-7089. The examiner can normally be reached on Monday-Friday 7:00AM - 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on (571) 272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Rodney H. Bonck
Primary Examiner
Art Unit 3681

rhb
June 21, 2006